

**ST. MARYS FALLS CANAL, MICHIGAN**

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**STATISTICAL REPORT  
OF  
LAKE COMMERCE PASSING THROUGH  
ST. MARYS FALLS CANAL  
SAULT STE. MARIE, MICHIGAN**

**DURING  
2010 NAVIGATION SEASON**

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**PREPARED UNDER THE DIRECTION OF  
UNITED STATES ARMY ENGINEER DISTRICT, DETROIT  
SAULT STE. MARIE AREA OFFICE**



## **TRAFFIC STATEMENT**

### **St. Marys Falls Canal, Michigan**

The 2010 commercial navigation season through the United States locks began on 21 March 2010 and ended 305 days later on 19 January 2011. On 18 March 2010, USCGC MOBILE BAY, USCGC PENOBSCOT BAY, and USCGC MACKINAW passed through the Poe Lock for ice breaking operations. The first commercial vessel for the season was the M/V LEE A TREGURTHA on 21 March 2010 up bound for Silver Bay, MN. The last commercial vessel TUG INVINCIBLE with I/B MCKEE SONS passed down bound through the Poe Lock on 19 January 2011.

Delays are defined as elapsed time a vessel spends waiting to proceed with a lockage. Nine vessels were delayed by ice for a total of 1 hour and 34 minutes. Lock and Hardware malfunctions accounted for five boats being delayed 1 hour and 56 minutes. Delays caused by interference by other vessels totaled 10 hours and 39 minutes. Vessel equipment malfunction accounted for 12 minutes of delays. Vessels detained by the U.S. Army Corps of Engineers or the USCG accounted for 1 hour and 1 minute of delays. All other delays amounted to 4 hours and 48 minutes.

The largest cargo recorded for a single passage in the 2010 season was 66,265 net tons of Coal by the M/V WALTER J MCCARTHY JR, on 8 September 2010. The greatest total seasonal cargo transported by a single vessel was 2,694,839 net tons carried by the M/V EDGAR B SPEER. The smallest cargo for a single passage in 2010 was 214 net ton of Electrical Machinery by the M/V BELUGA LEGISLATION on 17 July 2010.

Cargo flow was the greatest in the month of July with 8,909,371 net tons passing through the locks. A total of 4,422 cargo carriers passed through the locks during the 2010 season, an increase of 1,324 from the 2009 season. An annual total of 74,527,136 net tons of freight were recorded. This was 21,175,880 net tons above the 2009 total. Total vessel passages increased from 7,354 in 2009 to 10,015 in 2010. Freight increased by 39.69 percent and total cargo carrier passages decreased by 27.02 percent.

Comparing the movement of cargo in and out of Lake Superior, 12 commodities experienced decreases from 2009 ranging from 5.28% for Cement & Concrete to 100% for Primary I&S NEC, Manufac. Prod. NEC, and Grain Mill Products. Commodities increasing in volume ranged from Coal at 4.21% to I&S Bars & Shapes at 709.50%. The greatest single gain in cargo tonnage was 18,392,632 net tons of Iron Ore while the most significant decrease was 106,469 net tons of Slag.

The canal saw a sharp rebound in cargo movement compared to the 2009 season. The last time the canal saw an increase of this magnitude was between the 1977 (78,127,608 net tons) navigation season and 1978 (106,765,240 net tons) navigation season when the increase totaled 28,637,632 net tons. The largest yearly increase ever was between 1938 (40,042,739 net tons) navigation season and 1939 (69,850,262 net tons) navigation season when the increase totaled 29,807,523 net tons.

The 2010 season marked the permanent closure of the Sabin Lock. The construction of the Sabin Lock started in May 1914 and was completed in September 1919. The cost of construction totaled \$2,402,700. The first passage was on 18 September 1919 by the STEAMER G J LYDECKER. The last passage was on 24 September 1989 by the TOURBOAT HOLIDAY. The Sabin Lock will no longer be included in the annual report tables.

The periods of operation and total passages of all craft for each lock during the 2010 season are as follows:

<b>Lock</b>	<b>Traffic Opening Day</b>	<b>Closing Day</b>	<b>Number of Days in operation</b>	<b>Total Passages</b>
MacArthur	18 April 10	30 December 10	257	5,685
Poe	21 March 10	19 January 11	305	4,322
Davis *	N/A	N/A	3	8

\* Used occasionally

The following tabulation shows the number of cargo vessel passages recorded for the past ten navigational seasons through the American canal:

<b>Year</b>	<b>No. Passages</b>	<b>Year</b>	<b>No. Passages</b>
2001	4,309	2006	4,412
2002	4,543	2007	4,730
2003	4,205	2008	4,245
2004	4,189	2009	3,098
2005	4,312	2010	4,422

The following is a comparative monthly statement of freight tonnage moved through the St. Marys Falls Canal for the past two seasons:

<b>Month</b>	<b>2009 Net Tons</b>	<b>2010 Net Tons</b>	<b>Increase/Decrease</b>
March	78,900	1,247,118	1,168,218
April	4,268,711	7,075,675	2,806,964
May	5,624,019	8,360,539	2,736,520
June	5,731,472	8,134,045	2,402,573
July	5,885,323	8,909,371	3,024,048
August	5,989,718	8,582,379	2,592,661
September	5,579,574	8,049,370	2,469,796
October	6,673,940	7,587,430	913,490
November	6,495,265	7,427,129	931,864
December	5,465,138	6,505,638	1,040,500
January	1,559,196	2,648,442	1,089,246
Total	53,351,256	74,527,136	21,175,880

Statistical Report of Lake Commerce  
 Passing Through the Canal at Sault Ste. Marie, Michigan  
 For the Season of 2010

Item	Westbound	Eastbound	Total Net Tons	Previous 3 Seasons Average
Animal Feed, Prep.	0	169,578	169,578	0
Asphalt, Tar & Pitch	0	50,493	50,493	51,352
Barley & Rye	0	145,449	145,449	131,868
Cement & Concrete	281,591	11,693	293,284	372,853
Clay & Refrac. Mat.	0	76,362	76,362	122,294
Coal	1,908,297	16,160,510	18,068,807	279,815
Coal Coke	20,059	99,927	119,986	19,466,366
Distillate Fuel Oil	96,674	3,230	99,904	132,492
Dredged Material	139,452	0	139,452	41,013
Electrical Machinery	10,908	0	10,908	12,597
Fab. Metal Products	740	0	740	0
Flaxseed	0	342,439	342,439	431,319
Gasoline	82,197	2,297	84,494	99,320
Grain Mill Products	0	0	0	51,214
I&S Bars & Shapes	106,458	0	106,458	59,442
I&S Pipe & Tube	72,481	0	72,481	37,417
I&S Plates & Sheets	11,000	350,229	361,229	397,940
I&S Primary Forms	2,756	0	2,756	92
Iron & Steel Scrap	25,681	40,842	66,523	90,342
Iron Ore	0	40,570,408	40,570,408	36,003,235
Limestone	4,438,902	0	4,438,902	3,839,000
Lumber	0	0	0	2,420
Machinery (Not Elec)	38,630	2,451	41,081	32,258
Manganese Ore	0	0	0	9,242
Manufac. Prod. NEC	0	0	0	15
Oats	0	148,170	148,170	236,678
Oilseeds NEC	0	857,459	857,459	904,381
Paper & Paperboard	0	0	0	11,255
Petroleum Coke	0	29,963	29,963	23,718
Pig Iron	0	0	0	2,860
Potassic Fert.	0	349,708	349,708	360,700
Primary I&S NEC	0	0	0	33
Pulp & Waste Paper	0	0	0	10,722
Residual Fuel Oil	0	0	0	8,800
Salt	496,287	4,991	501,278	534,715
Sand & Gravel	3,505	0	3,505	10,324
Slag	0	525,323	525,323	555,139
Sodium Hydroxide	0	0	0	11,492
Soybeans	0	9,919	9,919	52,178
Vegetables & Prod.	0	154,999	154,999	307,498
Vehicles & Parts	300	400	700	33
Wheat	0	6,684,378	6,684,378	6,475,333
Vessel Passages	5,010	5,005	10,015	7,806
Lockages	3,689	3,647	7,336	6,399
Total Passengers	61,356	61,397	122,753	88,506
Recreational Passengers	1,316	1,289	2,605	1,455
Freight (Net Tons)	7,735,918	66,791,218	74,527,136	71,169,766

Comparative Statistical Statement of Lake Commerce  
Passing Through the Canal at Sault Ste. Marie, Michigan  
For the Seasons of 2009 and 2010

Item	2009 Season	2010 Season	Increase / Decrease	Percent Increase Decrease
Vessel Passages	7,354	10,015	2,661	36.18%
Cargo Carriers	3,098	4,422	1,324	42.74%
Non-Cargo Carriers	4,256	5,593	1,337	31.41%
Lockages	5,838	7,336	1,498	25.66%
Total Passengers	97,987	122,753	24,766	25.27%
Recreational Passengers	2,016	2,605	589	29.22%
Animal Feed, Prep.	0	169,578	169,578	100.00%
Asphalt, Tar & Pitch	46,981	50,493	3,512	7.48%
Barley & Rye	119,848	145,449	25,601	21.36%
Cement & Concrete	309,641	293,284	-16,357	-5.28%
Clay & Refrac. Mat.	70,732	76,362	5,630	7.96%
Coal Coke	194,271	119,986	-74,285	-38.24%
Coal	17,339,053	18,068,807	729,754	4.21%
Distillate Fuel Oil	93,686	99,904	6,218	6.64%
Dredged Material	70,967	139,452	68,485	96.50%
Electrical Machinery	5,080	10,908	5,828	114.72%
Fab. Metal Products	0	740	740	100.00%
Flaxseed	229,411	342,439	113,028	49.27%
Gasoline	117,944	84,494	-33,450	-28.36%
Grain Mill Products	38,614	0	-38,614	-100.00%
I&S Bars & Shapes	13,151	106,458	93,307	709.50%
I&S Pipe & Tube	0	72,481	72,481	100.00%
I&S Plates & Sheets	324,222	361,229	37,007	11.41%
I&S Primary Forms	0	2,756	2,756	100.00%
Iron & Steel Scrap	48,231	66,523	18,292	37.93%
Iron Ore	22,177,776	40,570,408	18,392,632	82.93%
Limestone	3,084,048	4,438,902	1,354,854	43.93%
Machinery (Not Elec)	12,816	41,081	28,265	220.54%
Manufac. Prod. NEC	45	0	-45	-100.00%
Oats	251,058	148,170	-102,888	-40.98%
Oilseeds NEC	909,229	857,459	-51,770	-5.69%
Petroleum Coke	17,171	29,963	12,792	74.50%
Potassic Fert.	186,077	349,708	163,631	87.94%
Primary I&S NEC	100	0	-100	-100.00%
Salt	564,800	501,278	-63,522	-11.25%
Sand & Gravel	0	3,505	3,505	100.00%
Slag	631,792	525,323	-106,469	-16.85%
Soybeans	31,742	9,919	-21,823	-68.75%
Vegetables & Prod.	248,430	154,999	-93,431	-37.61%
Vehicles & Parts	100	700	600	600.00%
Wheat	6,214,240	6,684,378	470,138	7.57%
Total Freight	53,351,256	74,527,136	21,175,880	39.69%

Statistical Table of Freight Tonnage  
Passing Through the Canal by Lock and Direction at Sault Ste. Marie, Michigan  
for the Season of 2010

Month	MacArthur	Poe	Davis	West Bound	East Bound	Total
March	0	1,247,118	0	102,958	1,144,160	1,247,118
April	910,321	6,165,354	0	572,510	6,503,165	7,075,675
May	1,841,100	6,519,439	0	908,028	7,452,511	8,360,539
June	2,006,143	6,127,902	0	858,371	7,275,674	8,134,045
July	1,750,188	7,159,183	0	1,120,446	7,788,925	8,909,371
August	1,954,546	6,627,833	0	940,895	7,641,484	8,582,379
September	1,815,712	6,233,658	0	940,576	7,108,794	8,049,370
October	1,667,916	5,919,514	0	1,038,658	6,548,772	7,587,430
November	1,635,109	5,792,020	0	885,127	6,542,002	7,427,129
December	919,815	5,585,823	0	294,901	6,210,737	6,505,638
January	0	2,648,442	0	39,905	2,608,537	2,648,442
Totals	14,500,850	60,026,286	0	7,702,375	66,824,761	74,527,136

Statistical Table of Freight Tonnage and Passages  
Passing Through the Canal by Lock and Direction at Sault Ste. Marie, Michigan  
for the Season of 2010

Net Tonnage					Passages			
Vessel Flag	MacArthur Lock	Poe Lock	Davis Lock	Total Net Tons	MacArthur Lock	Poe Lock	Davis Lock	Total Passages
American	3,838,240	50,824,024	0	54,662,264	3,501	3,019	2	6,522
Canadian	9,484,468	7,273,128	0	16,757,596	1,102	792	0	1,894
Foreign	1,178,142	1,929,134	0	3,107,276	197	166	0	363
Government	0	0	0	0	885	345	6	1,236
All Other	0	0	0	0	0	0	0	0
Totals	14,500,850	60,026,286	0	74,527,136	5,685	4,322	8	10,015

Table of Maximum Records of Freight Tonnage for One Day  
Passing Through the Canal by Lock at Sault Ste. Marie, Michigan  
for the Season of 2010

Lock	Day	Tonnage	Cargo Passages	Average Lockage Time	
				Hour	Minute
MacArthur	9/9/2010	202,224	10	1	0
Poe	8/24/2010	428,873	14	1	3
All Locks	8/24/2010	537,822	23	0	59

Freight between Lake Superior and each of the other Lakes and Overseas  
Passing Through the Canal at Sault Ste. Marie, Michigan  
for the Season of 2010

Vessel Flag	PORTS		EASTBOUND FROM LAKE SUPERIOR								
	From	To	Lake Michigan	Lake Huron	Lake Erie	Lake Ontario	St. Marys River	St. Clair / Detroit Rivers	St. Lawrence River and Coastwise	Foreign	Total
American	American	American	17,038,581	347,713	11,797,848	0	624	16,982,214	0	0	46,166,980
	American	Canadian	0	0	2,785,666	0	0	0	64,457	0	2,850,123
	Canadian	American	29,233	0	0	0	0	0	0	0	29,233
Canadian	Canadian	Canadian	0	243,450	127,689	917,755	10,291	384,693	3,534,821	0	5,218,699
	Canadian	American	313,242	235,712	502,195	0	0	709,192	0	0	1,760,341
	American	Canadian	0	0	2,494,054	2,688,952	0	15,684	2,680,140	0	7,878,830
	American	Overseas	0	0	0	0	0	0	0	11,485	11,485
Other Foreign	Canadian	Canadian	0	0	0	0	0	0	596,556	0	596,556
	Canadian	American	5,721	0	9,935	0	0	0	0	0	15,656
	Canadian	Overseas	0	0	0	0	0	0	0	698,913	698,913
	American	Canadian	0	0	0	18,519	0	0	692,372	0	710,891
	American	Overseas	0	0	0	0	0	0	0	853,511	853,511
Total Eastbound			17,386,777	826,875	17,717,387	3,625,226	10,915	18,091,783	7,568,346	1,563,909	66,791,218

Vessel Flag	PORTS		WESTBOUND TO LAKE SUPERIOR								
	From	To	Lake Michigan	Lake Huron	Lake Erie	Lake Ontario	St. Marys River	St. Clair / Detroit Rivers	St. Lawrence River and Coastwise	Foreign	Total
American	American	American	706,298	2,321,887	282,998	0	70,120	51,311	0	0	3,432,614
	American	Canadian	28,956	8,233	542,242	0	896	35,038	0	0	615,365
	Canadian	American	0	113,927	0	0	0	0	0	0	113,927
Canadian	Canadian	Canadian	0	300,164	7,176	35,234	100	83,011	0	0	425,685
	Canadian	American	0	280,681	3,370	124,573	0	31,840	0	0	440,464
	American	Canadian	959	366,040	564,412	0	0	48,687	0	0	980,098
Other Foreign	Canadian	Canadian	0	0	21,072	0	0	48,956	722	0	70,750
	Canadian	American	0	0	0	0	0	13,101	6,559	0	19,660
	American	Canadian	0	0	0	0	0	23,078	0	0	23,078
	American	American	4,019	0	7,887	0	0	0	0	0	11,906
	Overseas	American	0	0	0	0	0	0	0	8,470	8,470
	Overseas	Canadian	0	0	0	0	0	0	0	97,885	97,885
Total Westbound			1,041,735	4,195,006	1,837,919	132,238	149,073	266,311	7,281	106,355	7,735,918
Total Eastbound/Westbound			18,428,512	5,021,881	19,555,306	3,757,464	159,988	18,358,094	7,575,627	1,670,264	74,527,136

Comparative Statement of Deepest Monthly Drafts  
Passing Through the Canal at Sault Ste. Marie, Michigan  
for the Seasons of 2009 and 2010

Month	2009 Season			2010 Season			Increase / Decrease	
	Vessel Name	Draft		Vessel Name	Draft		Feet	Inches
		Feet	Inches		Feet	Inches		
March	JOYCE VANEKEVORT	25	7	AMERICAN MARINER	26	10	1	3
April	JOYCE VANEKEVORT	27	3	JOYCE VANEKEVORT	27	1		-2
May	AMERICAN MARINER	27	6	AMERICAN SPIRIT	27	0		-6
June	AMERICAN MARINER	28	0	ROGER BLOUGH	26	11	-1	1
July	PAUL R TREGURTHA	27	10	ST CLAIR	27	3		-7
August	INDIANA HARBOR	27	11	EDGAR B SPEER	27	2		-9
September	JOYCE VANEKEVORT	27	10	EDGAR B SPEER	27	2		-8
October	PAUL R TREGURTHA	27	7	OLYMPIC MELODY	27	7		0
November	JOYCE VANEKEVORT	27	6	PHILIP R CLARKE	26	11		-7
December	JOYCE VANEKEVORT	27	5	EEMSBOURG	26	9		-8
January	CHARLES M BEEGLY	27	6	HERBERT C JACKSON	26	0	-1	6

Maximum All-Time Freight Records  
for Each Month of Navigation

Month	Year	Number of Lockages	Number of Passages	Total Net Tons
February	1978	101	102	968,280
March	2006	109	122	1,744,715
April	1953	1,990	2,533	12,323,048
May	1953	2,524	3,378	18,071,240
June	1953	2,059	2,812	18,317,886
July	1953	2,938	4,199	18,660,360
August	1953	2,980	4,167	19,106,798
September	1952	2,768	3,455	17,537,072
October	1943	2,520	3,435	16,502,946
November	1952	2,296	2,789	13,604,714
December	1994	640	707	9,974,983
January	2004	252	253	3,827,480